

CLAIMS

1. Anti-deflagrating operating actuator, adapted to operate in an environment with explosion risks, characterised in that both components that are subjected to electric voltage, and a gear reducer, and a motion transmission mechanism and/or a mechanism transforming rotary motion into linear motion, are integrally protected against deflagration.
2. Anti-deflagrating operating actuator according to Claim 1, characterised in that an external protection housing optimally coats apparatus contained into the actuator, perfectly reproducing an outline of all parts contained into the actuator.
3. Anti-deflagrating operating actuator according to Claim 2, characterised in that a free volume inside the protection housing is kept uniform.
4. Anti-deflagrating operating actuator according to Claim 1, characterised in that outlets for connecting mechanical parts that transmit mechanical power are placed in ergonomic positions with reduced encumbrance.
5. Anti-deflagrating operating actuator according

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to Claim 1, characterised in that outlets for connecting electric supply and control connections are placed in order not to impair wiring resistance, avoiding to kink and consequently to stretch the wiring.

6. Anti-deflagrating operating actuator according to Claim 1, characterised in that an angular motion transmission is direct.
7. Anti-deflagrating operating actuator according to Claim 5, characterised in that an electric connection cable is secured to the housing through a cable-pressing device (21) equipped with a suitable securing and anti-deflagrating operating ring nut.
8. Anti-deflagrating operating actuator according to Claim 5, characterised in that a section of the electric cable that connects the actuator at least up to a first shunting box is contained in a suitable metallic tear-preventing sheath, reinforced with PCT and with a mechanical seal.
9. Anti-deflagrating operating actuator according to Claim 3, characterised in that a housing volume remained free is made uniform by increasing a thickness next to brackets (14) supporting a servomotor (SM) or by filling the

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housing volume with adequately dense material.

10. Anti-deflagrating operating actuator according to Claim 1, characterised in that two threaded couplings (2a-6a, 2b-3b) between a cylindrical mantle (2) and respective flanges (6) are realised respectively through a left-handed threading (SN) and a right-handed threading (DS).

11. Anti-deflagrating operating actuator according to Claim 1, characterised in that brackets (14) supporting a servomotor (SM) are integrally obtained with a flange (6) through melting in an aluminium alloy shell for casts.

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